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“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

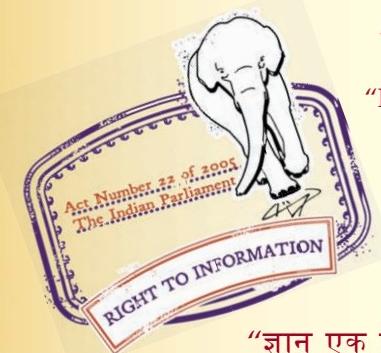
“Step Out From the Old to the New”

IS 7691 (1975): Frequencies for special power applications
[ETD 1: Basic Electrotechnical Standards]

“ज्ञान से एक नये भारत का निर्माण”

Satyanareshwar Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśākām

“Knowledge is such a treasure which cannot be stolen”



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FREQUENCIES FOR
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Indian Standard
FREQUENCIES FOR
SPECIAL POWER APPLICATIONS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 30 April 1975, after the draft finalized by the Electrotechnical Standards Sectional Committee had been approved by the Electrotechnical Division Council.

0.2 It is well known that in some special applications, such as in industries like rayon and also for traction systems, aircraft, machine tools, etc, special frequencies are required for control purposes. Keeping in mind that such applications are becoming increasingly common in this country owing to rapid industrialization, this standard has been drawn up to bring about uniformity in the frequencies adopted for such purposes.

0.3 In preparing this standard, assistance has been derived from IEC Pub 196-1965 'IEC Standard frequencies', issued by the International Electrotechnical Commission.

1. SCOPE

1.1 This standard prescribes standard frequencies required for special control applications required for single phase and three phase ac systems for installation in ships, for ac traction systems, machine tools, rayon industry and aircraft. This standard is limited to frequencies up to 10 000 Hz.

1.2 The standard frequencies for centralized control installations are not covered in this standard.

2. STANDARD FREQUENCIES

2.1 The standard frequencies for application specified in **1.1** shall be in accordance with Table 1.

TABLE 1 STANDARD FREQUENCIES
(Clause 2.1)

SYSTEMS AND INSTALLATIONS IN SHIPS		TRACTION	INDUSTRIAL USE <i>(See Note 3)</i>	AIRCRAFT
(1)	(2)	(3)	(4)	
Hz	Hz	Hz	Hz	
50		50		
60	50	100		
		150		
		200		
		250		
		300		
		400		400
		500		
		600		
		750		
		1 000		
		1 200		
		1 500		
		2 000		
		2 400		
		3 000		
		4 000		
		8 000		
		10 000		

NOTE 1 — When the frequencies are produced by rotating sets with induction motors, the real frequencies will be slightly lower than the values shown.

NOTE 2 — The values underlined in the 50 Hz series are recommended as preferred values for non-portable tools.

NOTE 3 — These recommendations are not applicable for the circuits of control devices of machine tools when these circuits form part only of a closed assembly peculiar to one machine-tool or to a combination of such machines.

NOTE 4 — While following the IEC recommendations, the column 'Rayon Industry' has been omitted since the two frequencies specified in that column have no significance as rated frequencies in the chemical fibre industry in India and the frequencies for this industry are determined by the technology in question.

**INDIAN STANDARDS
ON
ELECTROTECHNICAL STANDARDS (GENERAL)**

IS:

- 585-1962 Voltages and frequency for ac transmission and distribution systems (*revised*)
3599-1966 Method of measurement of cooling medium temperature for electrical apparatus
3722-1966 Letter symbols and signs used in electrical technology

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